

An English language translation of the amendments to the claims

Response

Claims amended as follows.

Amended claims 1-7 substitute original claims 1-9.

Amended claim 1 is based on original claims 1-5.

Amended claim 2 is based on original claim 6.

Amended claim 3 is based on original claim 8.

Amended claim 4 is based on original claim 9.

Amended claim 5 is based on original claim 7.

Amended claim 6 is based on original claim 8.

Amended claim 7 is based on original claim 9.

Meanwhile, the abstract is amended and all “light-emitting diode chip” in the specification are amended to “light-emitting diode die”.

Remarks

The amended claim 1 includes the envelop body as a cylindrical body and a top surface of the envelop body being indented to form a conic concave or a polygonal concave with a tip angle between 100° to 140°, which does not disclosed in cited reference 1 (USP 6,361,190). Therefore, the amended claim 1 is patentable over reference 1.

Although reference 1 discloses an angle between 0 to 150° for light beam emitted from the light-emitting diode die to emit all around the envelop body; however, reference 1 does not disclose how to uniformly emit the light. The present invention is to provide uniform light from emitted light-emitting diode die through the envelop body with large viewing angle. Obviously, the object of the present invention is distinct from reference 1. In technical, the inventor obtains from experiments that when merely the envelop body being indented to form the tip angle between 100° to 140°, the light emitted from the light-emitting diode die toward the inner surface of the indented top can be uniformly emitted all around. Furthermore, in order to optimize the best light deflecting and reflecting effect, the angle is around 130° to 140°. If the angle is less than 100° or larger than 140°; the lighting effect will be reduced. As such, the amended claim 1 as a whole is not anticipated by reference 1 because of the unforeseeable result. The amended claim 1 is non-obvious with inventive step.

Accordingly, the amended claims 2-4 depended on amended claim 1 are patentable. Furthermore, the amended claim 5 includes the top surface of the envelop body being indented to form a semi-spherical recess so as to provide uniform light from emitted light-emitting diode die through the envelop body with large viewing angle, which does not disclosed in cited reference 1. Therefore, with the similar reason as mentioned above, the amended claim 5 is patentable.

Accordingly, the amended claims 6 and 7 depended on amended claim 5 are patentable.

Applicant submits that the amended claims 1-7 are patentable in compliant with PCT rules with respect to novelty and inventive step.